

$$3.) f(x,y) = 20 - 4x - 5y$$

Graph the function

$$z = 20 - 4x - 5y$$

$$0 = 20 - 4x - 5y - z$$

$$x_{int} = y(0) z(0) : 0 = 20 - 4x - 0 - 0$$

$$(5, 0, 0)$$

$$20 = -4x$$

$$x = 5$$

$$y_{int} = x(0) z(0) : 0 = 20 - 0 - 5y - z$$

$$(0, 4, 0)$$

$$-20 = -5y$$

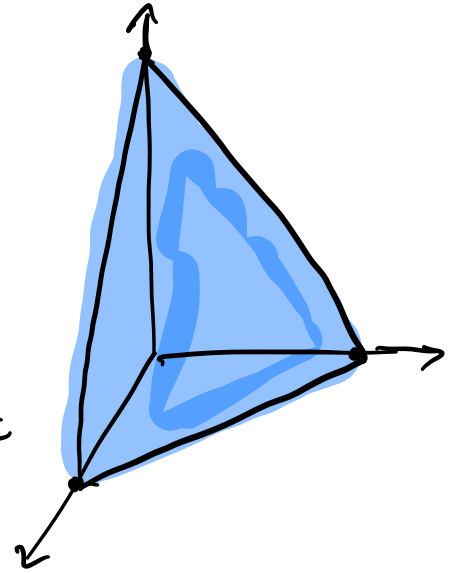
$$y = 4$$

$$z_{int} = x(0) y(0) : 0 = 20 - 0 - 0 - z$$

$$(0, 0, 20)$$

$$-20 = -z$$

$$z = 20$$



$$4.) f(x,y) = x^2 + 8y^2$$

$$z = x^2 + 8y^2$$

$$\frac{z}{8} = \frac{x^2}{8} + y^2$$

$$z=1 : \frac{1}{8} = \frac{x^2}{8} + y^2$$

$$x = 1 \sqrt{\frac{1}{8}}$$